

AMENDMENTS TO THE CLAIMS

1. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer, comprising at least the steps of:
5 forming an LED stack over a first substrate;
forming a first reaction layer over said LED stack;
forming a reflective layer over a second substrate;
forming a second reaction layer over said reflective layer; and
holding together said first reaction layer and said second reaction layer by means
10 of a transparent adhesive layer.
2. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 1, wherein said reflective
15 layer is a reflective metal layer.
3. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 2, wherein said reflective
metal layer comprises at least a material selected from the group consisting of In,
Sn, Al, Au, Pt, Zn, Ag, Ti, Pb, Pd, Ge, Cu, AuBe, AuGe, Ni, PbSn, AuZn, and the
20 like.
4. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 1, wherein said reflective
25 layer is a reflective oxide layer.
5. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 4, wherein said reflective
oxide layer comprises at least a material selected from the group consisting of
SiNx, SiO₂, Al₂O₃, TiO₂, MgO, and the like.
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6. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 1, wherein said transparent

adhesive layer comprises at least a material selected from the group consisting of polyimide (PI), benzocyclobutene (BCB), perfluorocyclobutane (PFCB), and the like.

- 5 7. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 1, wherein said first reaction layer or said second reaction layer comprises at least a material selected from the group consisting of SiNx, Ti, Cr, and the like.
- 10 8. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 1, wherein forming a reflective layer over a second substrate comprises the steps of forming a semiconductor stack over said second substrate and forming a reflective layer over said semiconductor stack.
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9. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 1, further comprising the step of removing said first substrate.
- 20 10. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer, comprising at least the steps of:
forming an LED stack over a first substrate;
forming a first reaction layer over said LED stack;
forming a second reaction layer over a reflective metal substrate; and
25 holding together said first reaction layer and said second reaction layer by means of a transparent adhesive layer.
- 30 11. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 10, wherein said reflective metal substrate comprises at least a material selected from the group consisting of Sn, Al, Au, Pt, Zn, Ag, Ti, Pb, Pd, Ge, Cu, AuBe, AuGe, Ni, PbSn, AuZn, and the like.

12. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 10, wherein said transparent adhesive layer comprises at least a material selected from the group consisting of polyimide (PI), benzocyclobutene (BCB), perfluorocyclobutane (PFCB), and the like.
13. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 10, wherein said first reaction layer or said second reaction layer comprises at least a material selected from the group consisting of SiNx, Ti, Cr, and the like.
14. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 10, wherein the step of forming a second reaction layer over a reflective metal substrate comprises the steps of forming a reflective layer over said reflective metal substrate and forming a second reaction layer over said reflective layer.
15. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 10, further comprising the step of removing said first substrate.
16. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer, comprising at least the steps of:
forming an LED stack over a first substrate;
forming a reflective layer over said LED stack;
forming a first reaction layer over said reflective layer;
forming a second reaction layer over a second substrate; and
holding together said first reaction layer and said second reaction layer by means of an adhesive layer.

17. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 16, wherein said reflective layer is a reflective metal layer.
- 5 18. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 16, wherein said reflective layer is a reflective oxide layer.
- 10 19. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 17, wherein said reflective metal layer comprises at least a material selected from the group consisting of In, Sn, Al, Au, Pt, Zn, Ag, Ti, Pb, Pd, Ge, Cu, AuBe, AuGe, Ni, PbSn, AuZn, and the like.
- 15 20. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 18, wherein said reflective oxide layer comprises at least a material selected from the group consisting of SiNx, SiO₂, Al₂O₃, TiO₂, MgO, and the like.
- 20 21. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 16, wherein said first reaction layer or said second reaction layer comprises at least a material selected from the group consisting of SiNx, Ti, Cr, and the like.
- 25 22. (withdrawn): A method for manufacturing a light emitting diode having an adhesive layer and a reflective layer according to claim 16, further comprising the step of removing said first substrate.
- 30 23. (currently amended): A light emitting diode having an adhesive layer and a reflective layer, comprising at least:
a substrate;

- a reflective layer formed over the substrate;
a first reaction layer formed over said reflective layer;
a transparent adhesive layer formed over said first reaction layer;
a second reaction layer formed over said transparent adhesive layer;
5 and an LED stack formed over said second reaction layer.

24. (original): A light emitting diode having an adhesive layer and a reflective layer according to claim 23, further comprising a transparent conductive layer between said second reaction layer and said LED stack.

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25. (original): A light emitting diode having an adhesive layer and a reflective layer according to claim 23, wherein said reflective layer is a reflective metal layer.

26. (original): A light emitting diode having an adhesive layer and a reflective layer
15 according to claim 23, wherein said reflective layer is a reflective oxide layer.

27. (currently amended): A light emitting diode having an adhesive layer and a reflective layer according to claim 25, wherein said reflective metal layer comprises at least a material selected from the group consisting of In, Sn, Al, Au, Pt, Zn, Ag, Ti, Pb, Pd, Ge, Cu, AuBe, AuGe, Ni, PbSn, and AuZn, ~~and the like~~.

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28. (currently amended): A light emitting diode having an adhesive layer and a reflective layer according to claim 26, wherein said reflective oxide layer comprises at least a material selected from the group consisting of SiNx, SiO₂, Al₂O₃, TiO₂, and MgO, ~~and the like~~.

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29. (currently amended): A light emitting diode having an adhesive layer and a reflective layer according to claim 23, wherein said transparent adhesive layer comprises at least a material selected from the group consisting of polyimide (PI), benzocyclobutene (BCB), and perfluorocyclobutane (PFCB), ~~and the like~~.

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30. (currently amended): A light emitting diode having an adhesive layer and a reflective layer according to claim 23, wherein said first reaction layer or said second reaction layer comprises at least a material selected from the group consisting of SiNx, Ti, and Cr, ~~and the like~~.
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31. (withdrawn): A light emitting diode having an adhesive layer and a reflective layer, comprising at least:
- a substrate;
 - a first reaction layer formed over the substrate;
 - 10 a adhesive layer formed over said first reaction layer;
 - a second reaction layer formed over said adhesive layer;
 - a reflective layer formed over said second reaction layer; and
 - an LED stack formed over said reflective layer.
- 15 32. (withdrawn): A light emitting diode having an adhesive layer and a reflective layer according to claim 31, further comprising a transparent conductive layer between said reflective layer and said LED stack.
- 20 33. (withdrawn): A light emitting diode having an adhesive layer and a reflective layer according to claim 31, wherein said reflective layer is a reflective metal layer.
34. (withdrawn): A light emitting diode having an adhesive layer and a reflective layer according to claim 31, wherein said reflective layer is a reflective oxide layer.
- 25 35. (withdrawn): A light emitting diode having an adhesive layer and a reflective layer according to claim 33, wherein said reflective metal layer comprises at least a material selected from the group consisting of In, Sn, Al, Au, Pt, Zn, Ag, Ti, Pb, Pd, Ge, Cu, AuBe, AuGe, Ni, PbSn, AuZn, and the like.
- 30 36. (withdrawn): A light emitting diode having an adhesive layer and a reflective layer according to claim 34, wherein said reflective oxide layer comprises at least a

material selected from the group consisting of SiN_x, SiO₂, Al₂O₃, TiO₂, MgO, and the like.

37. (withdrawn): A light emitting diode having an adhesive layer and a reflective layer
5 according to claim 31, wherein said transparent adhesive layer comprises at least a material selected from the group consisting of polyimide (PI), benzocyclobutene (BCB), perfluorocyclobutane (PFCB), and the like.
38. (withdrawn): A light emitting diode having an adhesive layer and a reflective layer
10 according to claim 31, wherein said first reaction layer or said second reaction layer comprises at least a material selected from the group consisting of SiN_x, Ti, Cr, and the like.
39. (currently amended): A light emitting diode having an adhesive layer and a
15 reflective layer, comprising at least:
a reflective metal substrate;
a first reaction layer formed over the reflective metal substrate;
a transparent adhesive layer formed over said first reaction layer;
a second reaction layer formed over said transparent adhesive layer;
20 and an LED stack formed over said second reaction layer.
40. (original): A light emitting diode having an adhesive layer and a reflective layer
according to claim 39, further comprising a transparent conductive layer between
said second reaction layer and said LED stack.
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41. (currently amended): A light emitting diode having an adhesive layer and a
reflective layer according to claim 39, wherein said reflective metal substrate
comprises at least a material selected from the group consisting of Sn, Al, Au, Pt,
Zn, Ag, Ti, Pb, Pd, Ge, Cu, AuBe, AuGe, Ni, PbSn, and AuZn, ~~and the like~~.
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42. (currently amended): A light emitting diode having an adhesive layer and a

reflective layer according to claim 39, wherein said transparent adhesive layer comprises at least a material selected from the group consisting of polyimide (PI), benzocyclobutene (BCB), and perfluorocyclobutane (PFCB), ~~and the like.~~

- 5 43. (currently amended): A light emitting diode having an adhesive layer and a reflective layer according to claim 39, wherein said first reaction layer or said second reaction layer comprises at least a material selected from the group consisting of SiNx, Ti, and Cr, ~~and the like.~~
- 10 44. (new): A light emitting diode having an adhesive layer and a reflective layer, comprising at least:
- a reflective means;
- a first reaction layer formed over said reflective means;
- a transparent adhesive layer formed over said first reaction layer;
- 15 a second reaction layer formed over said transparent adhesive layer; and
- an LED stack formed over said second reaction layer.